IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicant: Duruz et al.

Application No.: 10/001,308

Filed: 11/28/01 Examiner: Valentine

For: CELLS FOR THE ELECTROWINNING OF ALUMINIUM HAVING DIMENSIONALLY STABLE METAL-BASED ANODES

RESPONSE TO OFFICE ACTION

Commissioner for Patents
Washington, DC 20231

In response to the Office Action dated September 18, 2003, Applicants would like to note at the outset that only claims 66-80 should be pending because of a preliminary amendment filed at the time of filing of the present application. The Examiner is requested to enter this amendment. Arguments are presented herein only to claims 66-80.

Patentability of Claims 66-80:

Claim 66 has been rejected as obvious over Yamada et al in view of Keller. Claim 66 covers a method of electrowinning aluminium in a cell having a metal-based anode whose **surface is iron oxide** based in a molten electrolyte. The anode is kept "**dimensionally stable** during electrolysis by maintaining a **sufficient concentration of iron species in the electrolyte,** and operating the cell at a **sufficiently low temperature** so that the concentration of iron species in the electrolyte is limited by the **reduced solubility of iron species** in the electrolyte **at the (sufficiently low) operating temperature**, which consequently **limits the contamination of the product aluminium by iron to an acceptable level**". Hence, electrolysis is carried out with an electrolyte at a temperature which is below the conventional temperature of about 950°C as mentioned on page 1, lines 10-21 of Appicant's description.

Novelty of Claim 66:

Keller discloses the use of anodes made of NiO and Fe2O3 (col. 5, lines in adding amounts of anode constituents to the electrolyte so that "**dissolution and** thus **corrosion** rates of